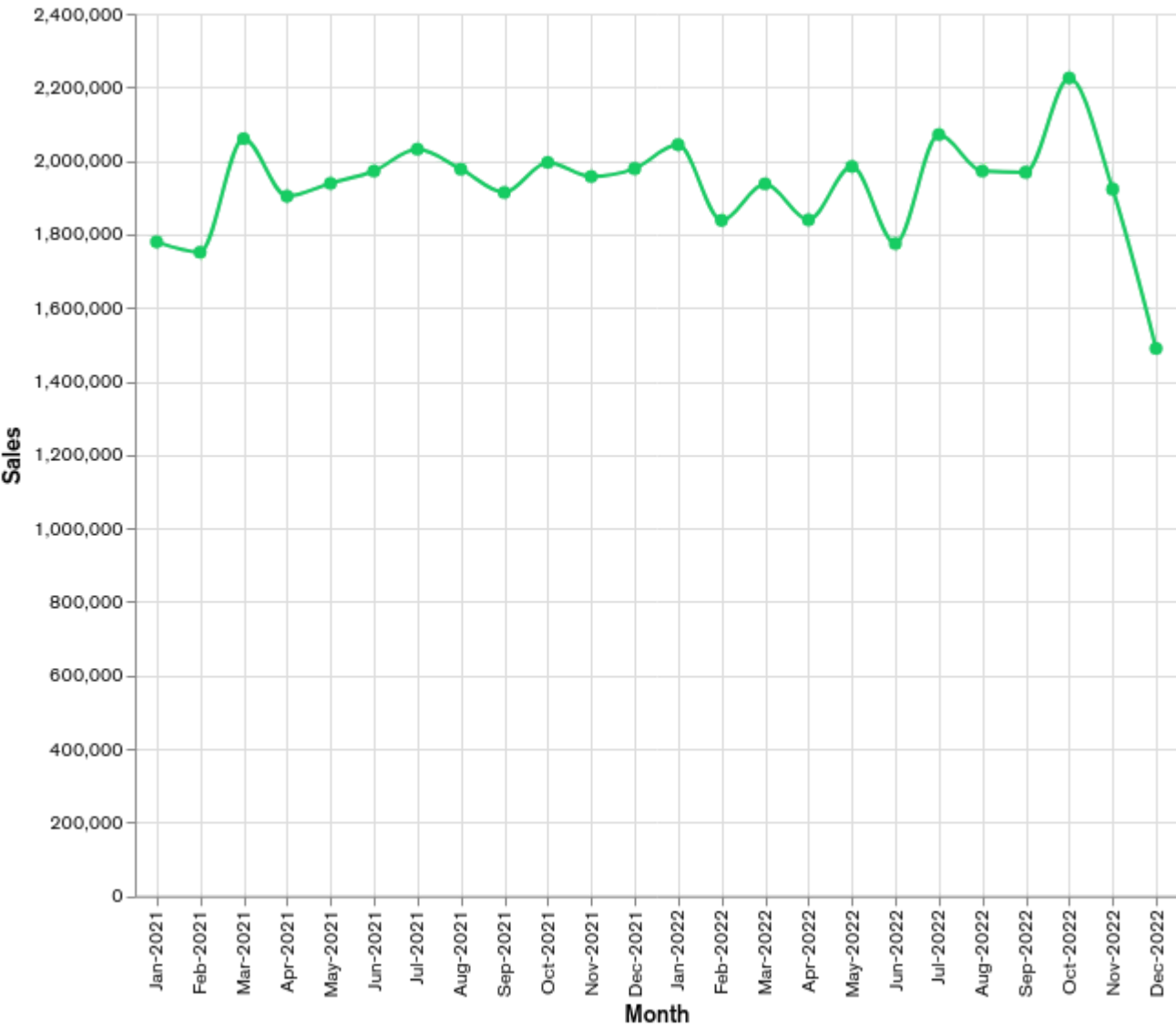


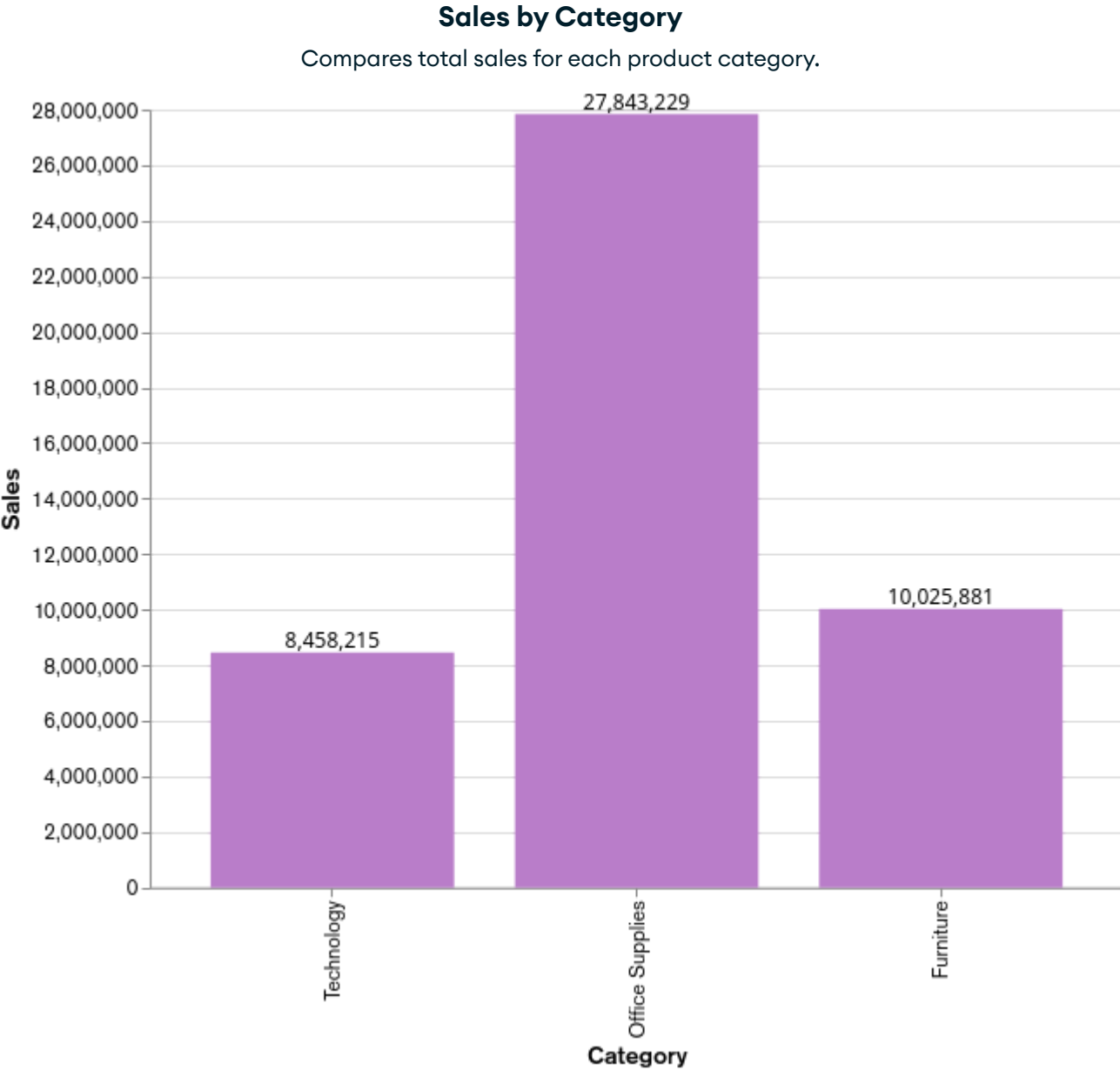
BDMA E-Commerce Analytics Dashboard | 055080

Key insights into sales trends, shipping performance, customer segmentation, and regional profitability.

Sales Over Time

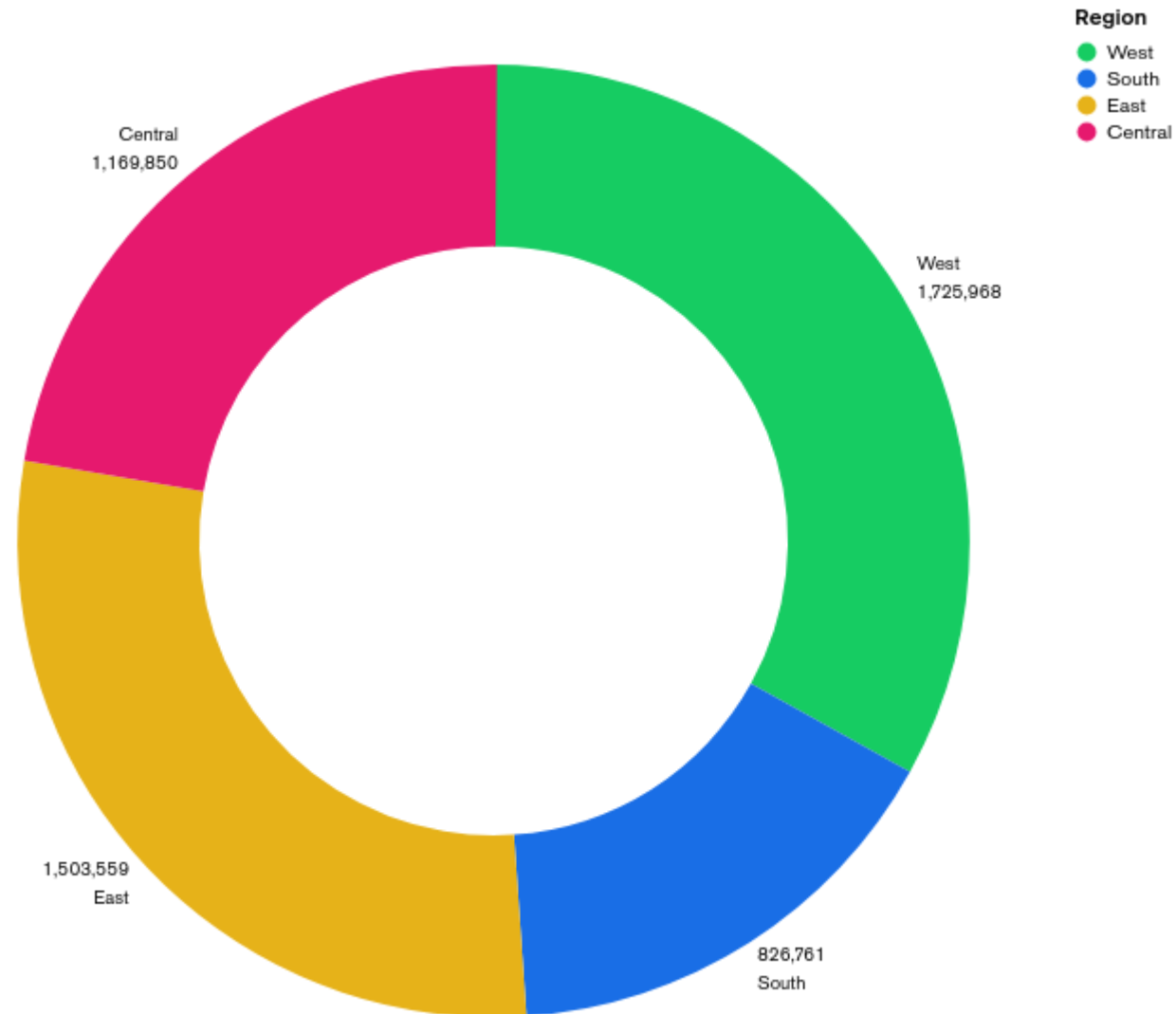
Shows the total sales trend across different dates.





Profit by Region

Highlights which regions produce the most profit.



Profit by State

Shows which locations drive the highest profit.

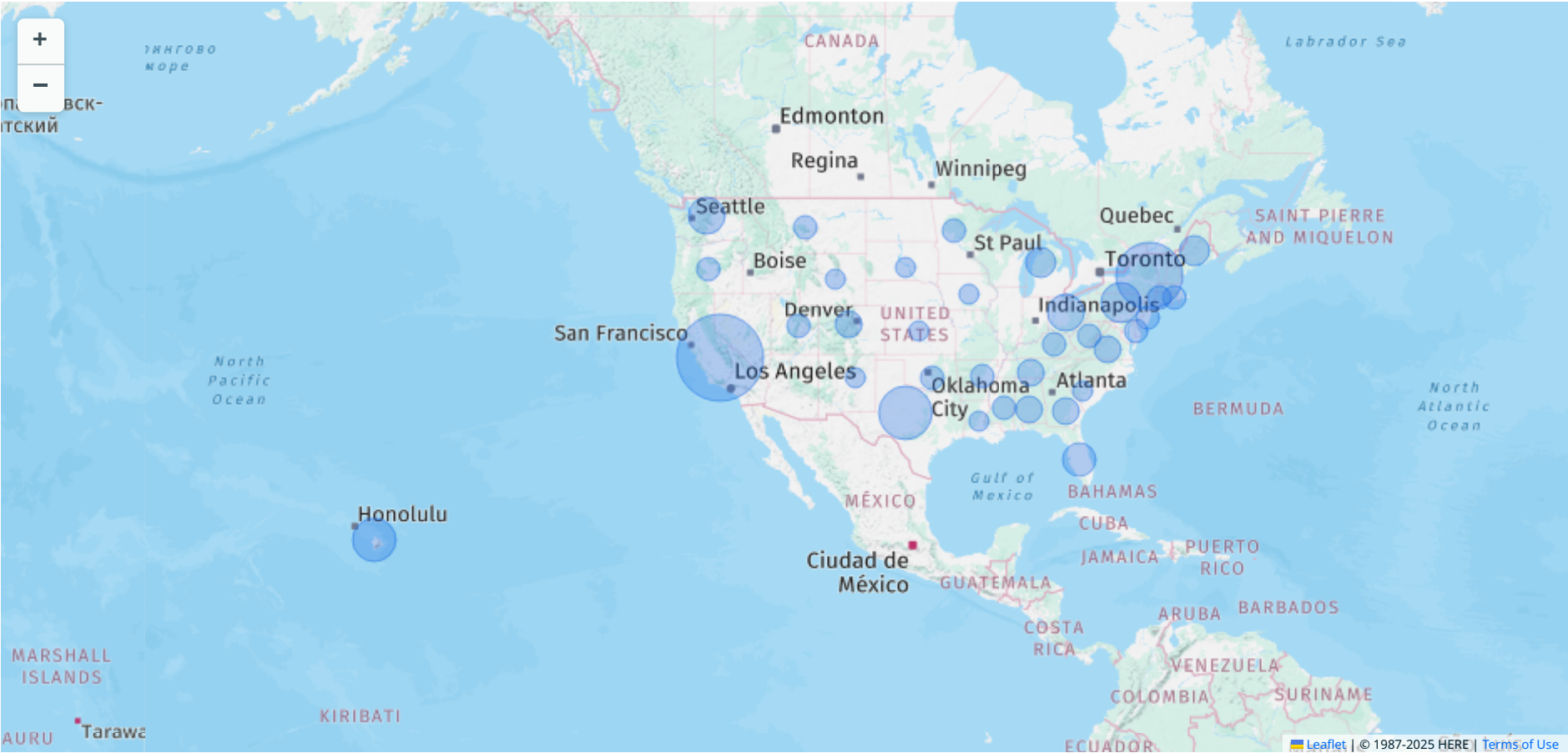


Profits



Sales by State

Shows which locations drive the highest sales.

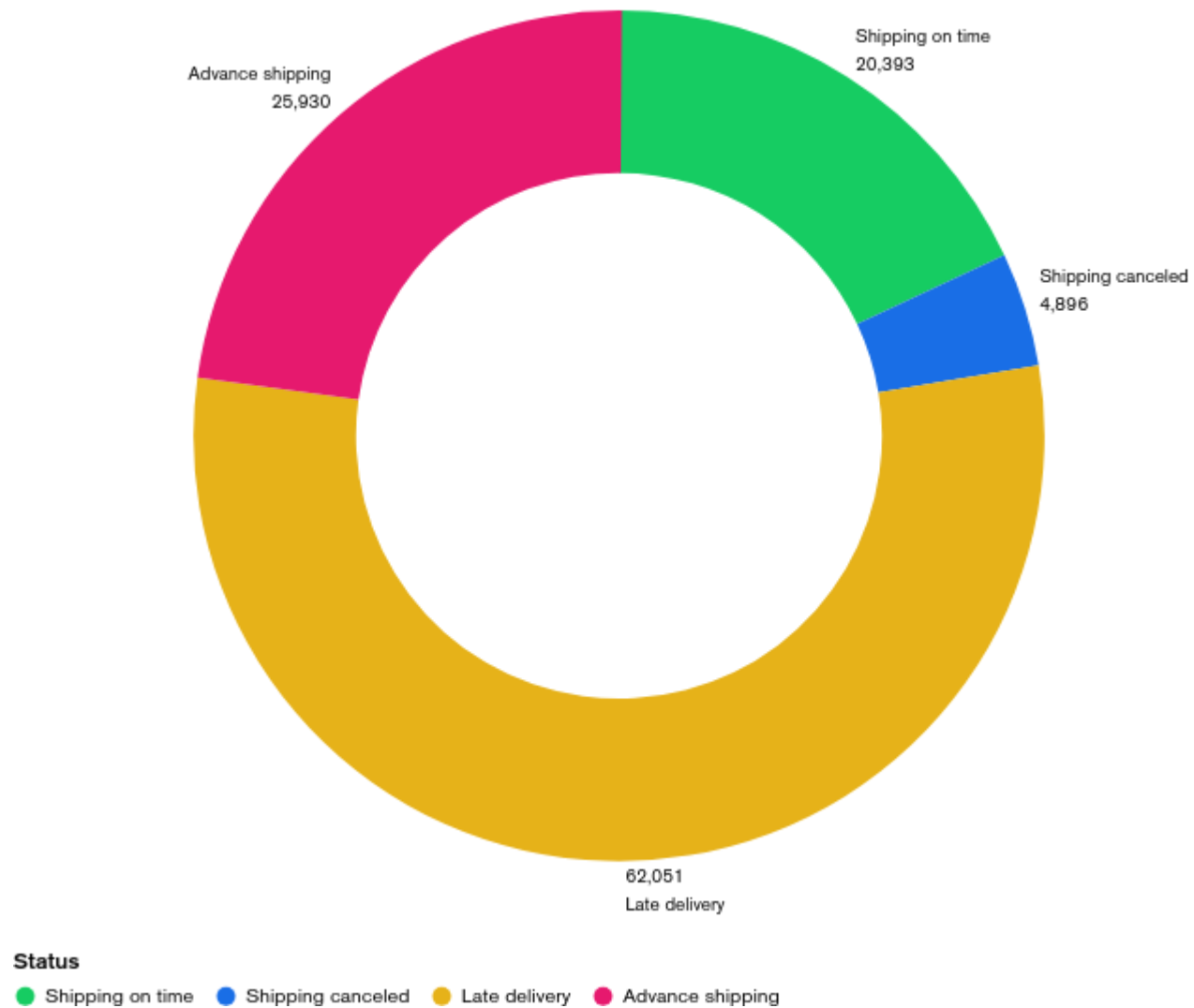


Sales



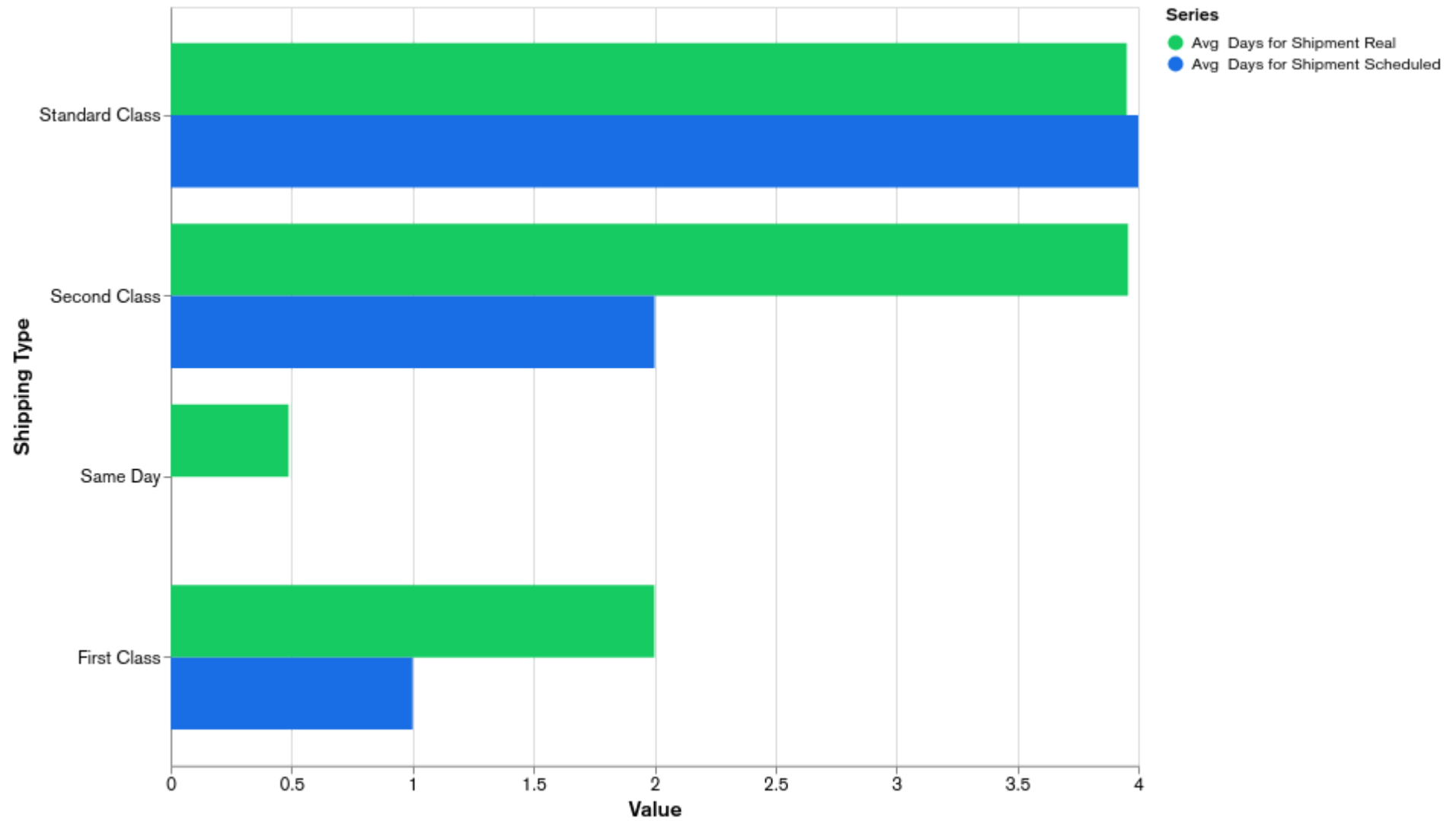
Delivery Status Analysis

Breaks down orders by on-time vs. delayed deliveries.



Shipping Type vs. Days for Shipment

Compares planned vs. actual shipping days by shipment method.



Unique Products

1,849

States Covered

49

Cities Covered

531

Top Product

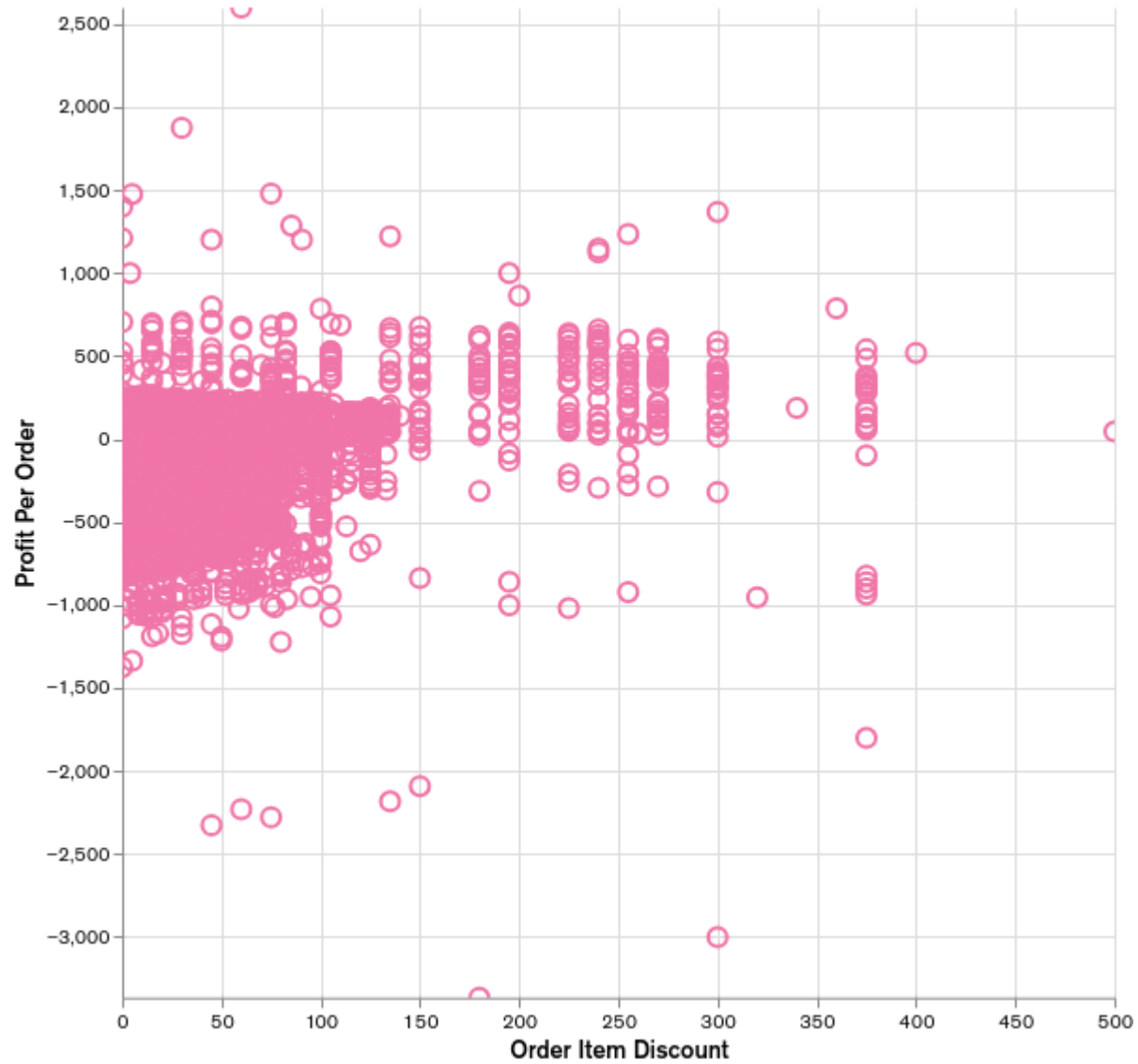
Product Name

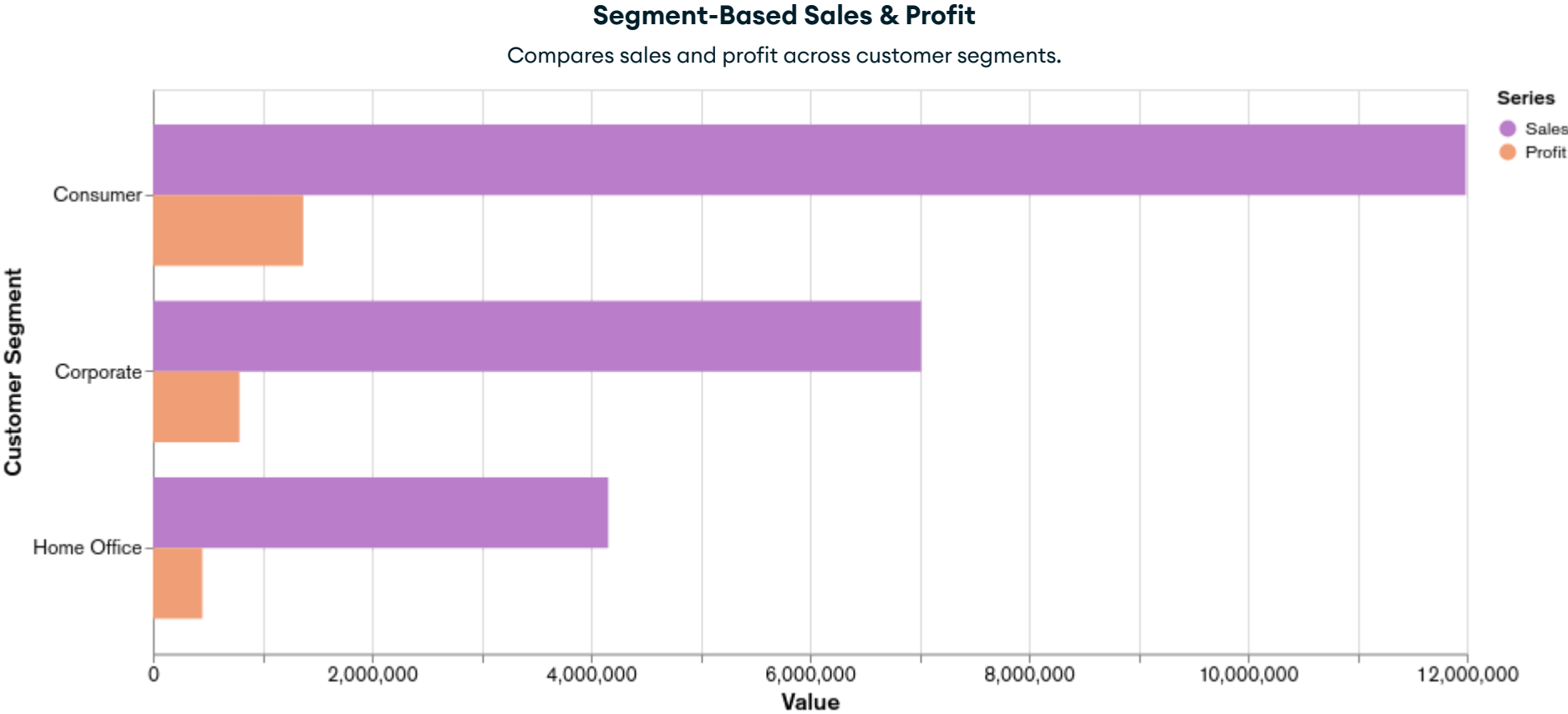
Avery

51

Discount Impact on Profit

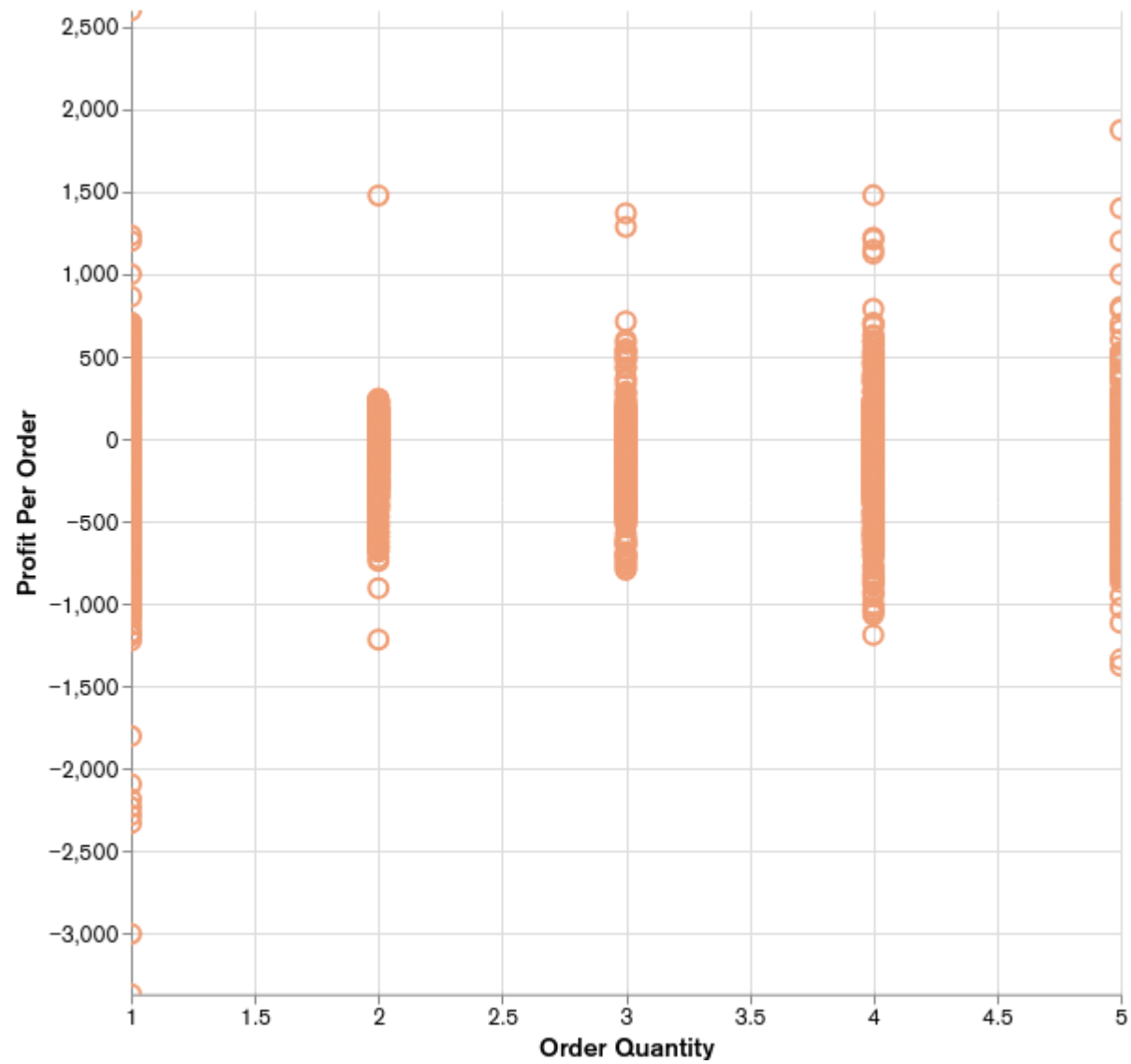
Visualizes how discounts correlate with profit.





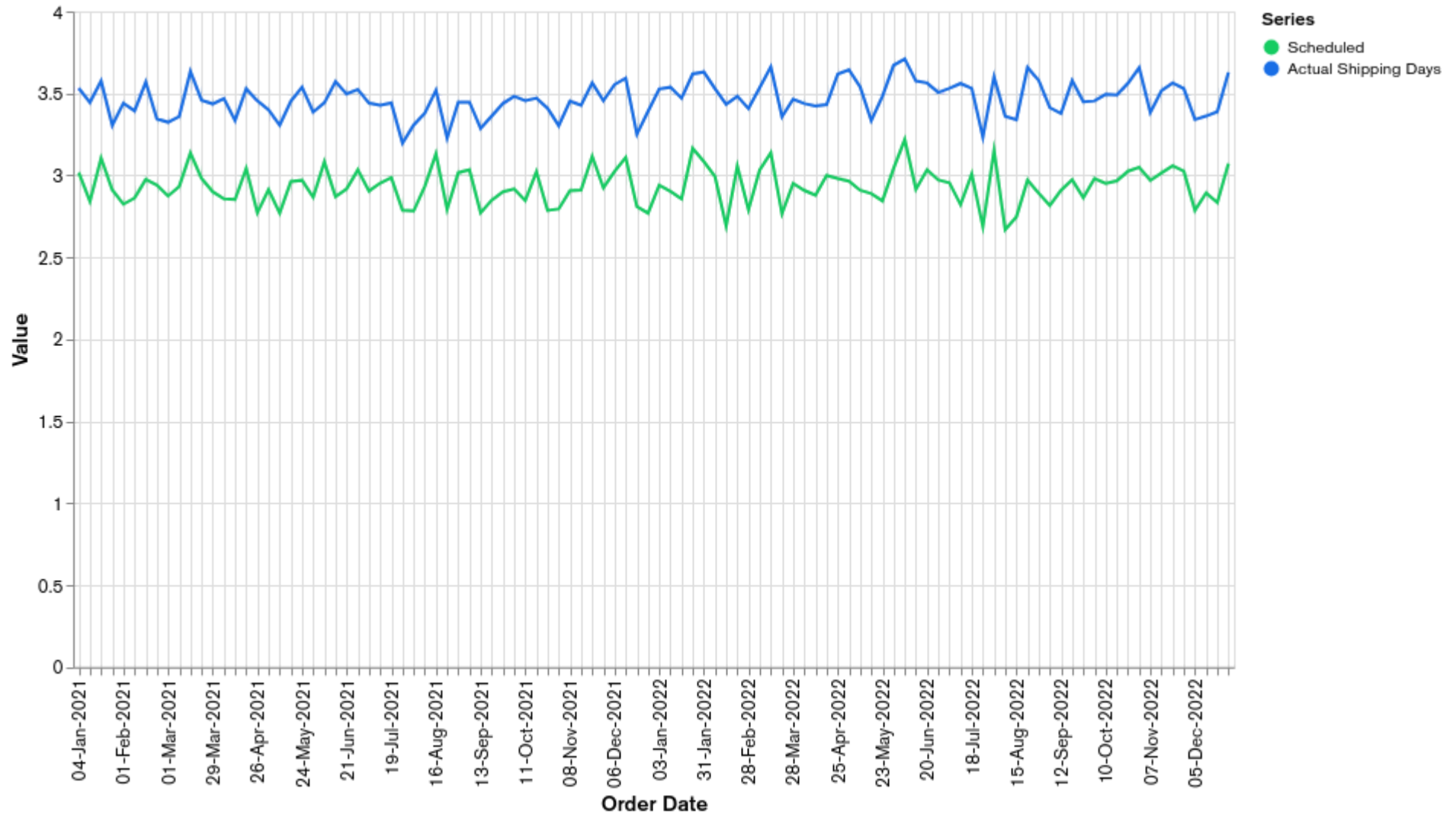
Quantity vs. Profit

Checks if higher order quantities yield more profit.



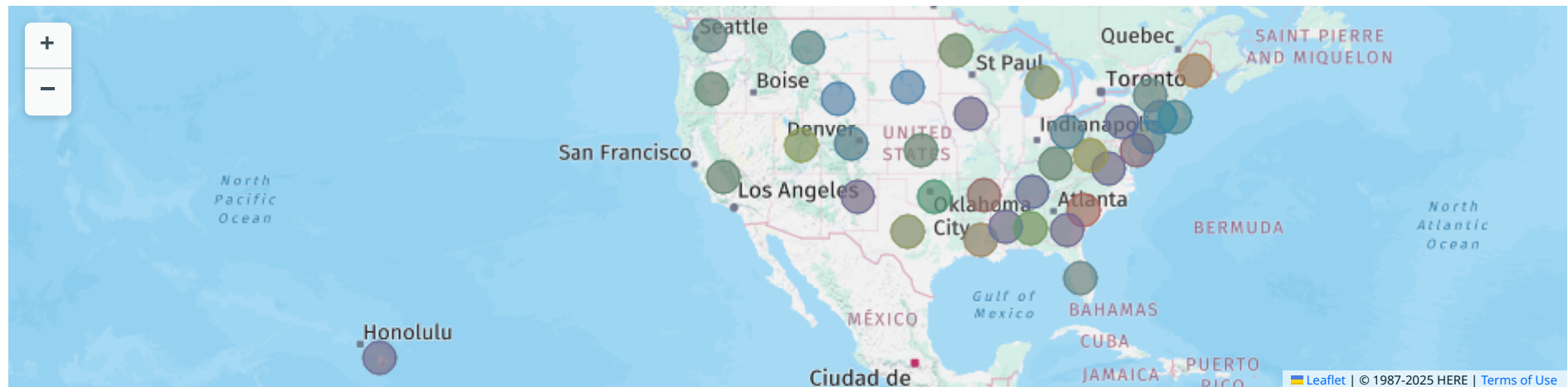
Ship Date vs. Order Date (Lead Time)

Examines lead times by comparing scheduled vs. actual shipment dates.



Geospatial Scatter of Order Delivery Status

Visually map orders to see which regions have more late deliveries.

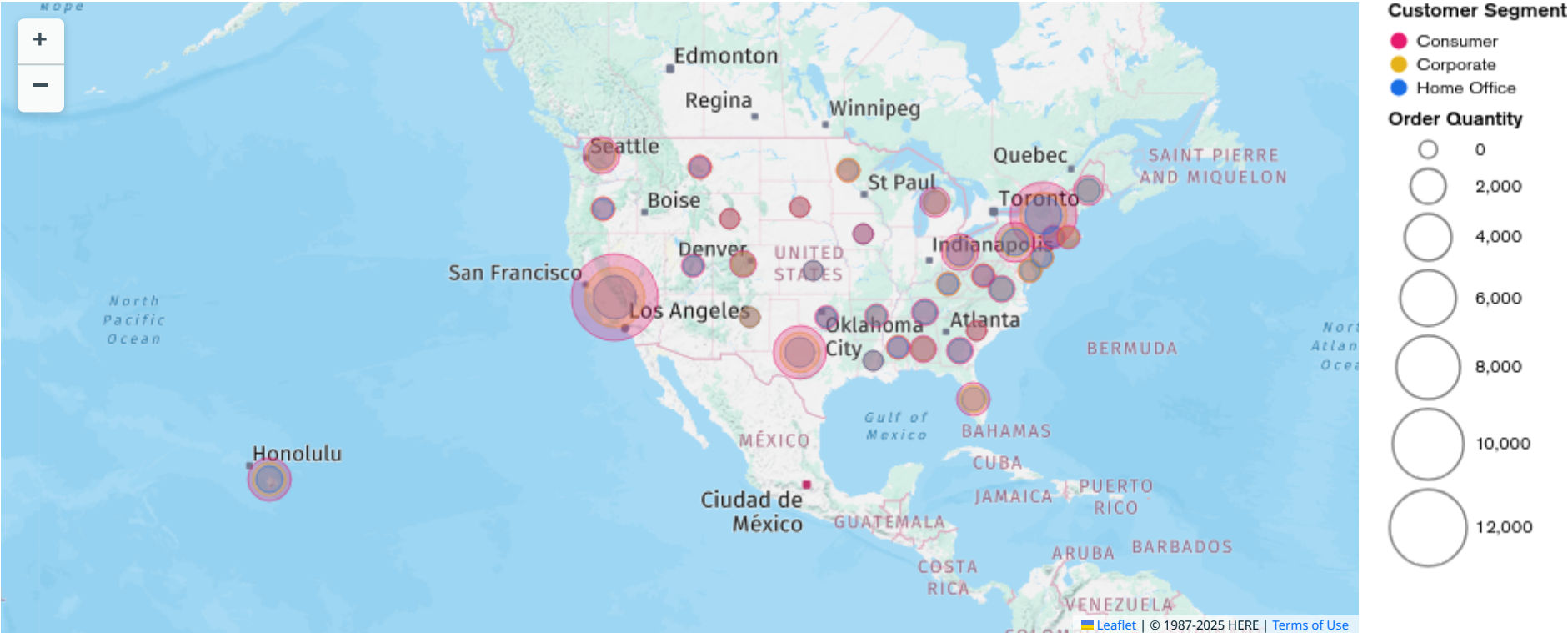


Delivery Status

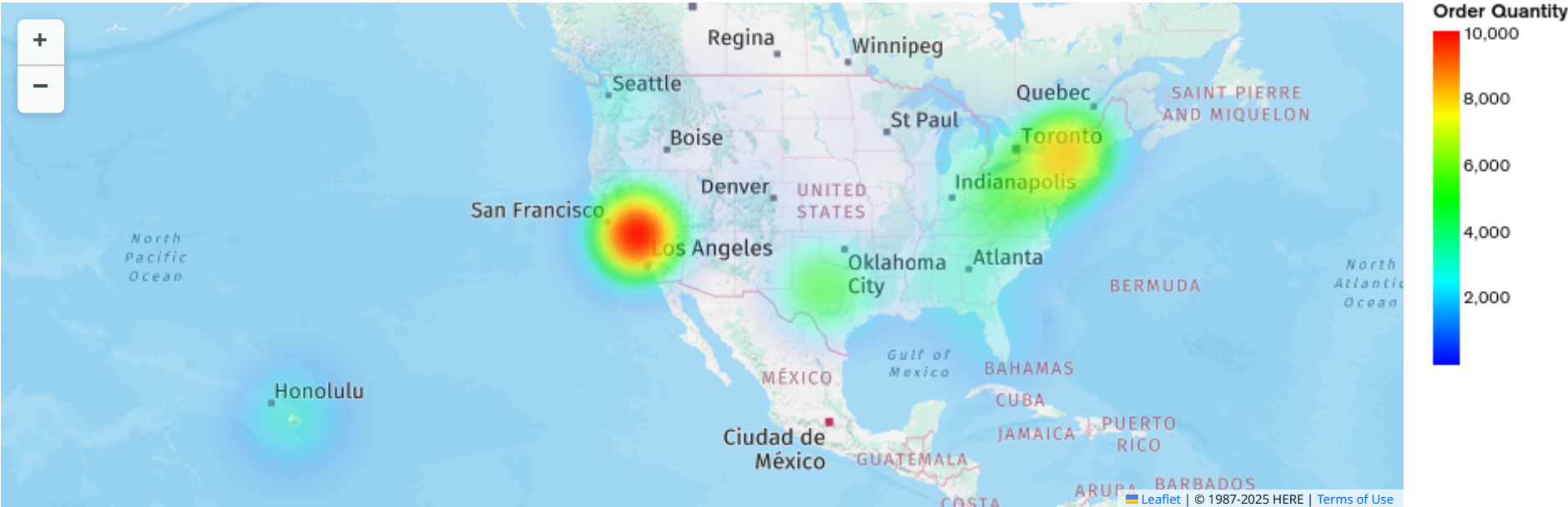
● Advance shipping ● Late delivery ● Shipping canceled ● Shipping on time

Geospatial Scatter of Orders

Visually map orders to see which regions have a certain customer segment concentration.

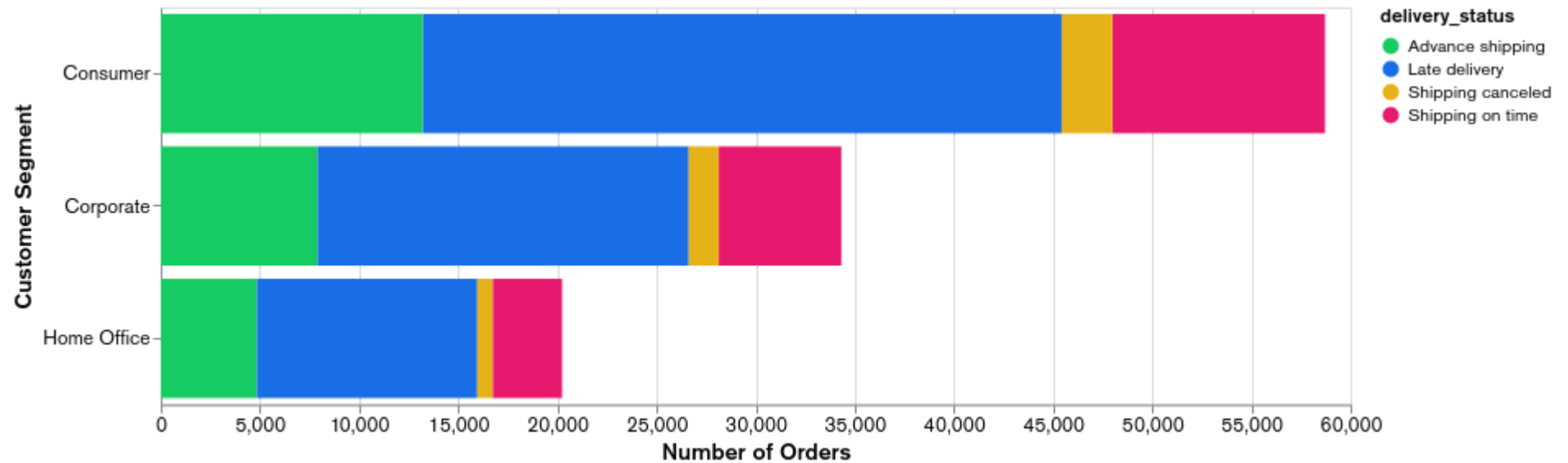


Geo Heatmap of Order Density



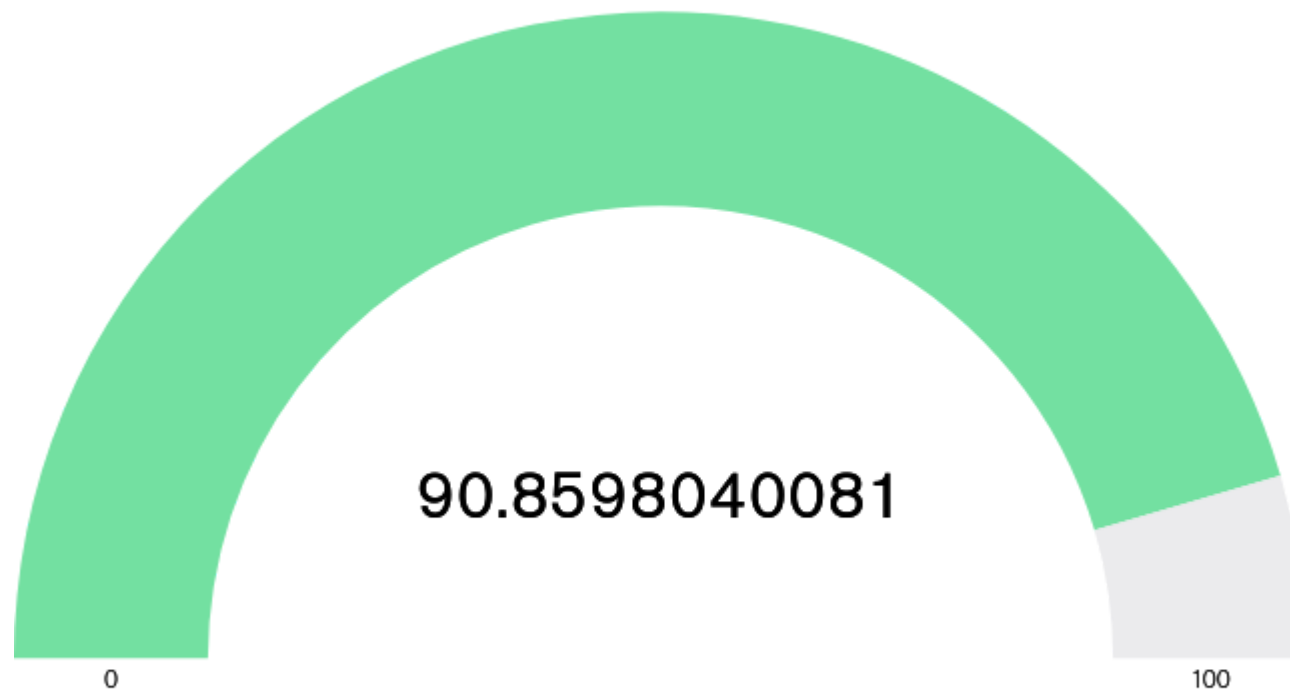
Segment vs. Delivery Status

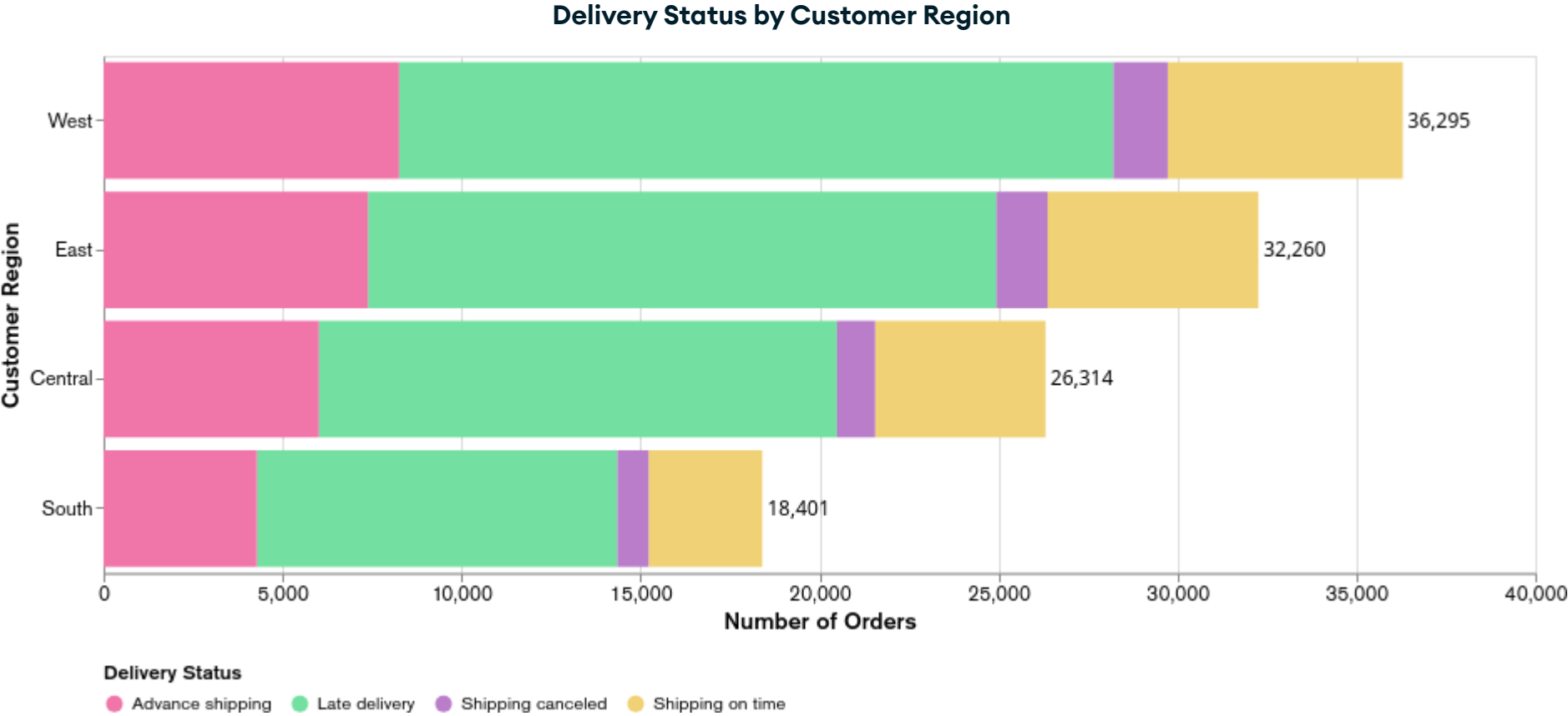
Spot which segment experiences more cancellations or late deliveries, guiding improvements or marketing focus.



Average Delivery Efficiency

Display the average delivery efficiency as a percentage, where: 100% means On-Time, Above 100% indi...





MongoDB Atlas Project

Course: Big Data Management Analytics (Term-3)

Faculty: Prof. Aditya Dua

Name: Dhananjay Singh Rathore

Roll No.: 055080

Section: L

Project: E-Commerce Analytics Dashboard

Executive Summary

The dashboard reveals steady sales growth and strong demand in high-performing categories and regions. However, deep discounting and shipping inefficiencies are impacting profit margins. Notably, regions like the West drive higher profits, while areas such as Texas show lower margins. Customer segmentation indicates that while the Consumer segment drives high sales volumes, the corporate segment, despite fewer orders, delivers superior profit per order.

Sales Performance Analysis

- **Sales Over Time:** Overall sales have increased steadily, with peak performance in Q4, indicating strong seasonal demand.
 - **Sales by Category:** Technology and Office Supplies lead revenue generation, with these categories accounting for over 50% of total sales.
 - **Sales by State:** States like California and New York dominate sales figures, whereas some smaller or rural states lag behind.
-

Profitability Insights

- **Regional Profitability:** The West region (e.g., California) contributes the highest profit margins, while the Central region (e.g., Texas) shows lower profitability despite high sales volumes.
- **Discount Impact:** Higher discount percentages correlate with lower profit margins; orders with discounts above 20% often yield minimal or negative profit.
- **Order Quantity vs. Profit:** Larger orders generate higher total profit, but their margin percentage tends to be lower compared to smaller, full-priced orders.

Shipping & Delivery Analysis

- **On-Time Delivery:** Approximately 85% of orders are delivered on time, with the remaining 15% experiencing delays or cancellations.
 - **Shipping Method Efficiency:** Expedited shipping methods (e.g., First-Class) achieve around a 95% on-time rate, whereas Standard and Second-Class shipping methods hover around 80–85%.
 - **Lead Time Variance:** Actual shipment days often exceed scheduled days by 1–2 days, particularly in regions with longer transit distances.
-

Customer Segmentation Insights

- **Consumer vs. Corporate:** Consumers drive high order volumes, but Corporate clients, though fewer, contribute significantly to profit due to higher order values.
 - **Segment Delivery Performance:** Corporate orders tend to be delivered on time, while Home Office orders experience slightly higher delays, suggesting a need for targeted logistics improvements.
 - **Behavior Trends:** Consumer purchasing peaks during promotional periods, while Corporate purchases are more planned and bulk-oriented.
-

Strategic Recommendations

1. **Optimize Discount Strategy:** Limit high discounts on low-margin products to preserve profitability.
 2. **Enhance Logistics:** Consider additional distribution centers or carrier renegotiations in underperforming regions (e.g., Texas) to reduce the 15% late delivery rate.
 3. **Focus Marketing:** Invest in targeted campaigns for high-performing regions (West and East) and reinforce customer loyalty programs, especially for Corporate clients.
 4. **Refine Product Portfolio:** Emphasize best-selling categories (Technology, Office Supplies) and consider phasing out consistently low-performing items.
-

Conclusion

Data from the E-Commerce Analytics Dashboard indicates a solid upward trend in sales with strategic opportunities to boost profit margins. By tightening discount practices, improving shipping performance, and tailoring marketing to specific customer segments, the business can enhance overall operational efficiency and drive sustainable growth. This report highlights actionable steps to leverage current strengths and address key weaknesses for a more profitable and efficient e-commerce operation.

Dashboard

